Monsanto 158704

IEPA - Water Pollution Control Division

SWD Fiche - 1932-1952

Monsanto: (village)

Monsanto (Co).

- SWD to contact sampling 1947

August 13, 1947

EAST ST. LOUIS—Mississippi River
Monsanto Chemical Company

Monsanto Chemical Company
Attn: J. F. Stickley
Assistant Plant Manager
Monsanto, Illinois

Gentlemen:

We appreciated the opportunity of having our Engineer A. P. Troeayer discuss your process operations with Mr. F. M. Berkey on August 5, 1947, particularly regarding the type of wastes discharged and the possible effect of these wastes on fish life in the Mississippi River. We regret that Mr. Stickley was not available at that time to participate in the discussion.

Considerable difficulty has been experienced during the past winter and spring with the fish caught in the Mississippi River below East St. Louis having a taste which makes them unfit for human consumption. The nature of this taste in the fish would indicate that it is probably due to some industrial wastes discharged to the River.

It would appear that sampling of your waste water effluent is necessary to definitely determine whether wastes from your Monsanto plant are or are not responsible for tastes created in fish in the Mississippi River. It is expected that such sampling will be conducted during the month of September, 1947. We appreciate the courtesies extended our engineer at the time of his August 5, 1947 visit and trust that we may continue to have your excellent cooperation in order that a solution to this important problem may be arrived at.

Very truly yours,

apt/s

Technical Secretary

cc - Mr. F. M. Berkey
Plant Superintendent

MONSANTO CHEMICAL COMPANY

ORGANIC CHEMICALS DIVISION
MONSANTO, ILLINOIS

November 7, 1947

Mr. A. P. Troemper
State Sanitary Water Board
Springfield, Illinois

Dear Mr. Troemper:

On my return Wednesday, November 5 I discovered that you had obtained all of the information you required from Mr. George Donovan and had returned to Springfield. I regret that the unexpected interruption occurred but I feel sure that our morning discussion brought out all of the points necessary at the time.

As we agreed upon, Mr. Donovan's man will follow the main sewer outlets and will determine the flows, comparing these with the calculated flows from meter readings in the various areas. In the meantime we shall lay out a line of attack which will show us in a general way the composition of the main effluents around the plant. Before we go too far in this however, it will be greatly appreciate if you will pass on to me the methods employed for the odor test and the Phenol Number such as was reported in your recent letter to us.

We shall expect to communicate with you when the project is further analyzed. In the meantime please do not hesitate to get in touch with us if you have any questions or wish to make any suggestions.

Very truly yours

Jos. F. Stickley

Jos. F. Stickley
Assistant Plant Manager

JFS:EF

MEMORANDUM

EAST ST. LOUIS--Mississippi River
Monsanto Chemical Company

Date: February 27, 1948

Interviewed: J. R. Stickley, Assistant Plant Manager, Monsanto Chemical Co.

Mr. Stickley was interviewed on the above date in order to determine if the complaint regarding tastes created in fish in the Mississippi River during the previous week had resulted from operations of their plant. This complaint was received through Senator R. G. Crisenberry, and was telephoned down to the writer on the evening of February 26. Mr. Stickley advised that there had been no change in their plant operations and had a member of the laboratory staff bring over their results of effluent analyses on the plant sewers to determine if the wastes discharged had differed appreciably from the previous several months.

An inspection of the laboratory data indicated that the phenol content and threshold odor of the waste discharged from the plant sewer had not differed appreciably from the wastes discharged during the previous three months. Actually the phenol concentration was slightly less than the average for the three-month period.

Mr. Stickley advised that they would continue running the effluent analyses through the month of March, at which time a conference could be held with representatives of this Board to decide on a further course of action. The possibilities of running fish studies to determine if Monsanto's wastes were responsible for tastes in the fish were discussed and Mr. Stickley preferred to hold a decision on this matter in abeyance until our next conference. It seemed that his reaction to the fish studies was not favorable since they would consume the time of some personnel, of which they were presently short. However, if sufficient reason could be given to indicate the desirability of fish studies, it is believed that Monsanto Chemical Company would undertake to run them.

The results of the discussion at Monsanto Chemical Company were reported to Senator Crisenberry by telephone at noon on February 27 in an effort to keep him currently advised regarding the situation.

A. P. Greenfield
Principal Sanitary Engineer

APT:mms

MONSANTO CHEMICAL COMPANY

ORGANIC CHEMICALS DIVISION
MONSANTO, ILLINOIS

March 1, 1948

Mr. A. Paul Troemper
State Sanitary Water Board
Springfield, Illinois

Dear Mr. Troemper:

We were very pleased to hold the emergency discussion with you on February 27, 1948 covering the complaint received at your office on February 26 involving a foreign taste in fish taken from the Mississippi River in the vicinity of Grand Tower. As I reported to you, Monsanto was in the process of preparing a report of our analyses of waste water discharged from the Monsanto, Illinois Plant. A tabulation of our results covering the months of December 1947, and January and February 1948 is attached to this letter. As you know these results were obtained in every case on samples taken from the main sewer adjacent to Highway No. 3, which sewer carries all Plant B effluent to the river. The tests themselves were made in accordance with the Illinois Sanitary Water Board method incorporating the use of borax as suggested by us and agreed upon by Mr. Weart in our meeting of January 14. The threshold odor tests were made in strict conformance with the Illinois Sanitary Water Board procedure.

As you and Mr. Weart requested on January 14, we have carefully checked the Illinois Sanitary Water Board method for phenol on monochlorphenol and dichlorphenol and find that it applies equally as well for the quantitative determination of chlorphenols as for phenol. The results shown in the analyses therefore report both the phenol and any chlorphenol present in the waste water.

From a careful review of the data attached we conclude that the phenol content is well within safe limits and further, that there is no evidence of a change in the waste water impurities, or in organic, phenolic, or chlorphenolic content over the period December 1, 1947 to February 26, 1948. Assuming that the foreign taste observed in the fish is genuine, there are evidently factors responsible other than waste water from Monsanto Chemical Company. In our meeting of February 26 we developed the following possible causes:

1. Rapid runoff of sewage water to streams feeding the Mississippi due to thawing at the ground surface only.
2. Build up in streams feeding the river of putrefying vegetation, wastes, sewage, garbage, etc.
3. Slow oxidizing conditions for such waste due to cold weather, ice, snow, and general inactivity of bacteria under present conditions.

In accordance with our discussion we shall continue to sample and analyze our waste water by the agreed-upon method during March and review with you our results on about April 1. Meanwhile we plan to keep in contact with you concerning any further developments.

Wishing you and Mr. Weart our kindest personal regards,

Sincerely

Jos. F. Stickley

Jos. F. Stickley
Assistant Plant Manager

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Att. 3

DECEMBER

	PHENOL (Parts per million)	THRESHOLD ODOR NUMBER AND CODE
	47	4 C
	36	91 Ch
	98	3 Ch
	148	5 Ch
	98	5 Ch
	89	4 Ch
	49	5 C
	85	200 Ch
	19	18 CA
	59	7 Ch
	59	10 C
	63	18 Ch
	51	60 Ch
	50	7 C
	31	60 Ch
Average	66	33

JANUARY

	PHENOL (Parts per million)	THRESHOLD ODOR NUMBER AND CODE
	58	60 C_{SO_2}
	81	30 AC_{SO_2}
	171	100 A
	83	200 C
	59	10 C
	83	400 ChC_{SO_2}
	67	400 ChC_{SO_2}
Average	86	171

FEBRUARY

PHENOL (Parts per million)	THRESHOLD ODOR NUMBER AND CODE
138	800 Ch
76	200 CA
106	400 CA_{SO_2}
37	90 C_{SO_2}
158	90 CA
50	30 CA
90	60 C_{SO_2}
71	99 CA
69	40 C_{SO_2}
58	400 C_{SO_2}
46	40 C
61	60 C
90	200 CA
46	90 C_{SO_2}
Average 78	185